

**Amendment and Response**

Applicant: John Rausch et al.

Serial No.: 10/691,816

Filed: October 23, 2003

Docket No.: 200312423-1

Title: ORIFICE PLATE AND METHOD OF FORMING ORIFICE PLATE FOR FLUID EJECTION DEVICE**REMARKS**

The following Remarks are made in response to the Non-Final Office Action mailed June 16, 2004, in which claims 1-23 were withdrawn from consideration as being directed to a non-elected invention, claims 24-32 and 34-44 were rejected, and claims 33 and 45 were objected to. With this amendment, claims 1-23 have been cancelled without prejudice, claims 46-58 have been added, and claims 24, 33, 34, and 45 have been amended, including allowable claims 33 and 45 which have been rewritten in independent form. Claims 24-58, therefore, remain pending in the application and are presented for reconsideration and allowance.

**Claim Rejections under 35 U.S.C. § 102 and 35 U.S.C. § 103**

Claims 24-26, 28, 34-38, and 40 are rejected under 35 U.S.C. 102(e) as being anticipated by Mantell et al. U.S. Patent No. 5,900,892. Claims 27, 29-31, 39, and 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mantell et al. U.S. Patent No. 5,900,892 in view of DeBoer et al. U.S. Patent No. 6,345,880. Claims 32 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mantell et al. in view of Murthy et al. U.S. Patent No. 6,612,032.

With this Amendment, independent claims 24 and 34 have been amended to clarify that, with regards to orifice plate, "a thickness of the second layer is substantially equal to a thickness of the first layer."

With respect to the Mantell et al., DeBoer et al., and Murthy et al. patents, none of these patents, individually or in combination, teach or suggest an orifice plate for a fluid ejection device as claimed in amended independent claim 24, nor a fluid ejection device as claimed in amended independent claim 34.

In view of the above, Applicant submits that independent claims 24 and 34 are each patentably distinct from the Mantell et al., DeBoer et al., and Murthy et al. patents and, therefore, are in a condition for allowance. Furthermore, as dependent claims 25-32 further define patentably distinct claim 24 and include additional patentable subject matter, and dependent claims 35-44 further define patentably distinct claim 34 and include additional patentable subject matter, Applicant submits that dependent claims 25-32, and dependent claims 35-44 are also in a condition for allowance. Applicant, therefore, respectfully requests

**Amendment and Response**

Applicant: John Rausch et al.

Serial No.: 10/691,816

Filed: October 23, 2003

Docket No.: 200312423-1

**Title: ORIFICE PLATE AND METHOD OF FORMING ORIFICE PLATE FOR FLUID EJECTION DEVICE**

that the rejection of claims 24-26, 28, 34-38, and 40 under 35 U.S.C. 102(e) and the rejections of claims 27, 29-31, 39, and 41-43, and claims 32 and 44 under 35 U.S.C. 103(a) be reconsidered and withdrawn and that claims 24-32 and 34-44 be allowed.

**Allowable Subject Matter**

Claims 33 and 45 are objected to as being dependent upon a rejected base claim and are indicated as being allowable if rewritten in independent form to include all of the limitations of the base claim and any intervening claims.

With this Amendment, Applicant has rewritten allowable claim 33 in independent form to include all of the limitations of the base claim (claim 24) and any intervening claims (none). Applicant, therefore, respectfully requests that the objection to claim 33 be withdrawn and that claim 33 be allowed.

With this Amendment, Applicant has rewritten allowable claim 45 in independent form to include all of the limitations of the base claim (claim 34) and any intervening claims (none). Applicant, therefore, respectfully requests that the objection to claim 45 be withdrawn and that claim 45 be allowed.

**New Claims**

With this Amendment, new claims 46-58 have been added, with claim 46 being independent and claims 47-58 depending therefrom. New independent claim 46 recites, amongst other things, "an orifice plate extended over at least a portion of the drop generator" and "a bonding layer interposed between the orifice plate and the thin-film structure," "wherein the orifice plate includes a first layer formed of a metallic material and a second layer formed of a polymer material, wherein the first layer has an orifice and a first opening communicated with the orifice formed therein, and the second layer has a second opening communicated with the first opening formed therein, and wherein a diameter of the orifice and a diameter of the second opening are both greater than a minimum diameter of the first opening." These recitations are not taught or suggested by the Mantell et al., DeBoer et al., or Murthy et al. patents. For at least this reason, Applicant submits that new independent claim 46 is allowable. Furthermore, as dependent claims 47-58 further define patentably distinct

**Amendment and Response**

Applicant: John Rausch et al.

Serial No.: 10/691,816

Filed: October 23, 2003

Docket No.: 200312423-1

Title: ORIFICE PLATE AND METHOD OF FORMING ORIFICE PLATE FOR FLUID EJECTION DEVICE

claim 46, Applicant submits that dependent claims 47-58 are also in a condition for allowance.

**Amendment and Response**

Applicant: John Rausch et al.

Serial No.: 10/691,816

Filed: October 23, 2003

Docket No.: 200312423-1

Title: ORIFICE PLATE AND METHOD OF FORMING ORIFICE PLATE FOR FLUID EJECTION DEVICE**CONCLUSION**

In view of the above, Applicant respectfully submits that pending claims 24-58 are all in a condition for allowance and requests reconsideration of the application and allowance of all pending claims.

Any inquiry regarding this Amendment and Response should be directed to either Dmitry Milikovsky at Telephone No. (858) 655-3251, Facsimile No. (858) 655-5859 or Scott A. Lund at Telephone No. (612) 573-2006, Facsimile No. (612) 573-2005. In addition, all correspondence should continue to be directed to the following address:

**Hewlett-Packard Company**  
Intellectual Property Administration  
P.O. Box 272400  
Fort Collins, Colorado 80527-2400

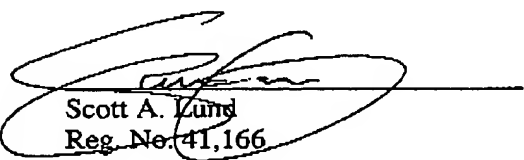
Respectfully submitted,

John Rausch et al.,

By their attorneys,

DICKE, BILLIG & CZAJA, PLLC  
Fifth Street Towers, Suite 2250  
100 South Fifth Street  
Minneapolis, MN 55402  
Telephone: (612) 573-2006  
Facsimile: (612) 573-2005

Date: SEPT. 16, 2004  
SAL:jan

  
Scott A. Lund  
Reg. No. 41,166

**CERTIFICATE UNDER 37 C.F.R. 1.8:** The undersigned hereby certifies that this paper or papers, as described herein, are being facsimile transmitted to the United States Patent and Trademark Office, Fax No. (703) 872-9306 on this 16TH day of September, 2004.

By   
Name: Scott A. Lund